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United States Patent [19][11] **Patent Number:** **5,940,143****Igarashi et al.**[45] **Date of Patent:** **Aug. 17, 1999**

[54] **HIGH-DEFINITION TELEVISION SIGNAL
RECEIVING APPARATUS AND GAIN
CONTROL CIRCUIT THEREOF**

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[57] **ABSTRACT**

An automatic gain controlling circuit and a high-definition television signal receiving apparatus includes an input terminal for receiving a signal including first and second signal components creating interference, a first automatic gain controlling amplifier for amplifying the received signal and providing an amplified output signal, a filter for selectively passing a signal portion in a predetermined band of the amplified output signal from the first automatic gain controlling amplifier, and a second automatic gain controlling amplifier for amplifying the signal portion passed by said filter and providing amplified output signal portion. There is also provided a switching signal generator responsive to one of the amplified output signal and the amplifier output signal portion for generating a switching signal, a switching circuit at least being responsive to the switching signal for at least controlling supply of a gain control signal to the first and second automatic gain controlling amplifiers in accordance therewith, and an automatic gain control signal detector for detecting the amplified output signal for supplying an output indicative thereof to the switching circuit.

[21] Appl. No.: **08/725,466**

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[30] **Foreign Application Priority Data**

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[51] Int. Cl.⁶ **H04B 1/26**

[52] U.S. Cl. **348/678; 455/241.1; 455/246; 455/251; 455/78; 455/183.1; 455/200.1; 455/246.1; 455/249.1; 455/250.1; 455/254; 348/707; 348/678; 348/723**

[58] **Field of Search** 348/678, 685, 348/707, 735, 647, 255; 455/234.1, 234.2, 236.1, 245.1, 250.1, 219, 232.1, 235.1, 240.1, 241.1, 247.1, 251.1

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20 Claims, 4 Drawing Sheets

